

FOR NATIONAL PHASE SUBMISSION

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CLAIM AMENDMENTS

WHAT IS CLAIMED IS:

This listing of the claims will replace all prior versions, and listing, of claims in the application:

1. (Currently Amended) A Ffluid injector ~~with comprising~~ a housing-(1), a valve body-(2) and an actuator unit-(3), that is inserted into the housing, ~~with~~ wherein the valve body-(2) ~~comprises~~ esing a cartridge-(21) with a recess-(211), that takes in a needle-(22), a hollow body-(23), which is arranged in a fixed position to the needle-(22) and forms a first spring rest-(231), a valve cap-(26), which takes in the cartridge-(21) and forms a second spring rest-(261), and a return spring-(25), that rests on one hand on the first spring rest-(231) and on the other hand on the second spring rest-(231), ~~with~~ wherein the valve cap-(26), the housing-(1) and the cartridge-(21) being formed such, that before the valve cap-(26) and the housing-(1) and the valve cap-(26) and the cartridge-(21) are permanently fixed to each other the valve cap-(26) is moveable relative to the housing-(1) and the cartridge-(21) while the housing-(1) and the cartridge-(21) stay in a fixed position relative to each other.

2. (Currently Amended) A Ffluid injector ~~in accordance with according to~~ claim 1, ~~wherein with~~ the valve cap-(26) or the cartridge-(21) ~~comprises~~ esing a first sealing element-(27), which seals the connection between the valve cap-(26) and the cartridge-(21).

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3. (Currently Amended) A fluid injector according to claim 1, wherein in accordance with one of the preceding claims ~~with~~ the housing ~~(1)~~ or the valve cap ~~(26)~~ comprising a second sealing element ~~(28)~~, which seals the connection between the housing ~~(1)~~ and the valve cap ~~(26)~~.

4. (Currently Amended) A fluid injector according to claim 1, wherein in accordance with one of the preceding claims ~~with~~ the valve cap ~~(26)~~ comprising a thread ~~(262)~~ and the housing ~~(1)~~ comprising a corresponding thread ~~(12)~~ and the valve cap ~~(26)~~ being threaded into the thread of the housing.

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5. (Currently Amended) A ~~M~~method for manufacturing a fluid injector with a housing-(1), a valve body-(2) and an actuator unit-(3), that is inserted into the housing-(1), with the valve body-(2) comprising a cartridge-(21) with a recess -(211), that takes in a needle-(22), a hollow body-(23), which is arranged in a fixed position to the needle-(22) and forms a first spring rest-(231), a valve cap-(26), which takes in the cartridge-(21) and forms a second spring rest-(261), a return spring-(25), that rests on one hand on the first spring rest -(231) and on the other hand, on the second spring rest-(261), with the valve cap-(26), the housing-(1) and the cartridge-(21) being formed such, that before the valve cap-(26) and the housing-(1) and the valve cap-(26) and the cartridge-(21) are permanently fixed to each other the valve cap-(26) is moveable relative to the housing-(1) and the cartridge-(21) while the housing-(1) and the cartridge-(21) stay in a fixed position relative to each other, with the steps of:

- calibrating the fluid flow characteristics of the fluid injector by moving the valve cap-(26) and thereafter ~~that~~
- permanently fixing the valve cap-(26) to the housing-(1) and to the cartridge-(21).

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6. (NEW) A fluid injector comprising:
a housing,
an actuator unit arranged within the housing,
a cartridge with a recess and a needle arranged in the
recess,
a hollow body arranged in a fixed position to the needle
and forming a first spring rest,
a valve cap in which the cartridge is arranged and forming
a second spring rest, and
a return spring resting on the first and second spring
rest, wherein the valve cap, the housing and the cartridge being
formed such, that before the valve cap and the housing and the
valve cap and the cartridge are permanently fixed to each other
the valve cap is moveable relative to the housing and the
cartridge while the housing and the cartridge stay in a fixed
position relative to each other.

7. (NEW) A fluid injector according to claim 6, wherein
the valve cap or the cartridge comprises a first sealing
element, which seals the connection between the valve cap and
the cartridge.

8. (NEW) A fluid injector according to claim 6, wherein
the housing or the valve cap comprise a second sealing element,
which seals the connection between the housing and the valve
cap.

9. (NEW) A fluid injector according to claim 6, wherein
the valve cap comprises a thread and the housing comprises a
corresponding thread and the valve cap being threaded into the
thread of the housing.